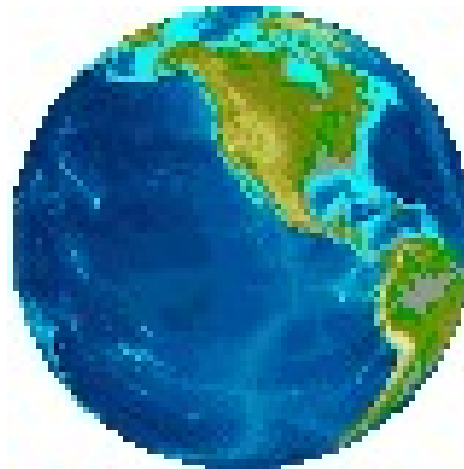


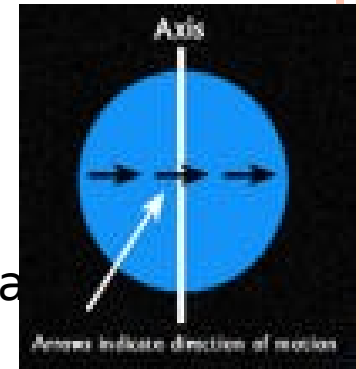
ROTATION AND REVOLUTION



ROTATION

What does Rotation mean?

Rotation occurs when something is spinning around an axis.



What are some examples of things that rotate?

Tops, Ballerinas, Figure skaters, cyclones, Tornadoes, a merry-go-round, Earth

How do we know that the Earth rotates?

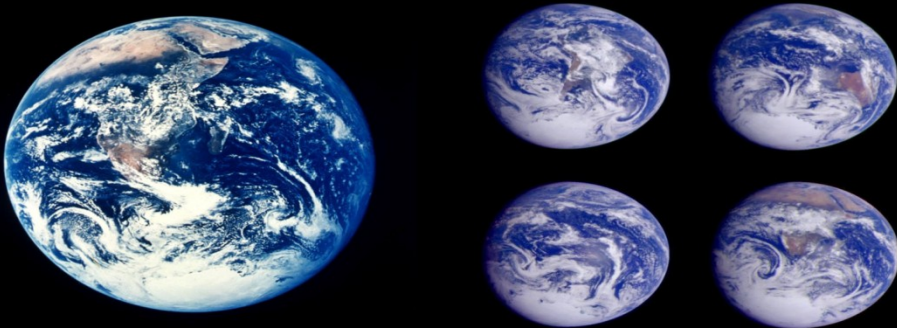
1. Star trails- trails made with time exposure, circular paths that occur because the planet is moving and not stationary.
2. Winds curve because of the Earth's rotation.
3. Ocean currents curve clockwise in the northern hemisphere, and counterclockwise in the southern hemisphere.
4. The movement of a pendulum. It does not actually move, it is the Earth moving that causes the pendulum to appear to change the direction of its swing.



EARTH'S REVOLUTION

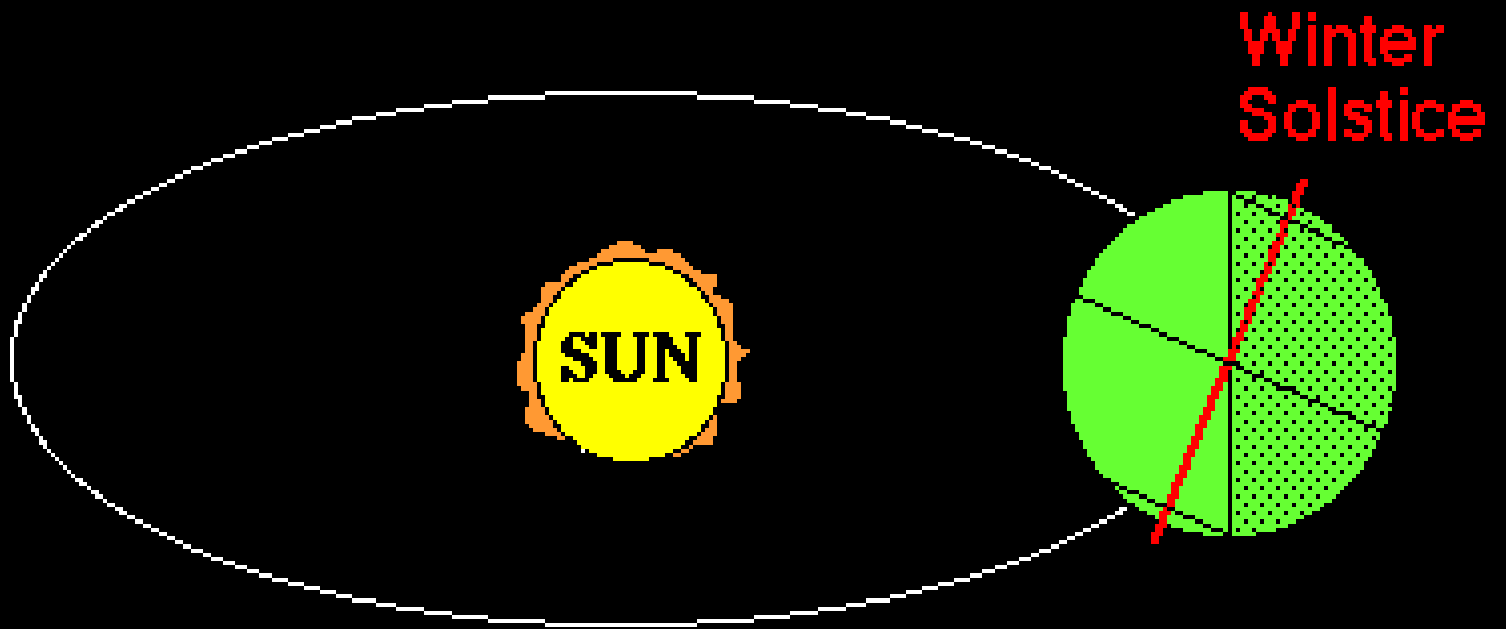
- A revolution occurs as the earth moves around the sun.
- Time for one revolution = $365 \frac{1}{4}$ days = 8,766 hours
- The speed of earth's revolution is about 18

Earth: Rotation and Revolution

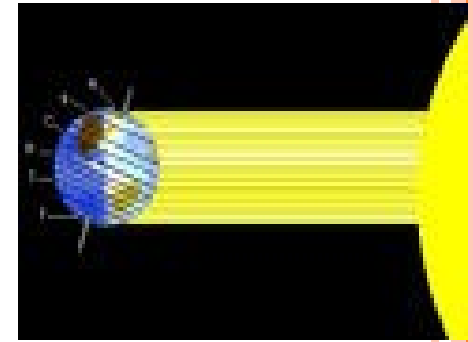
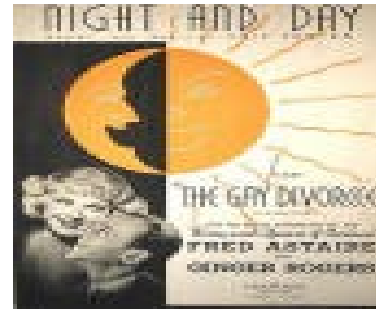


Motions of the Earth

EARTH'S REVOLUTION



NIGHT AND DAY



What causes night and day?

The rotation of the Earth

- The side of the Earth that is facing the sun has daylight, the side of the Earth away from the sun has night.
- It takes 24 hours for the Earth to complete one rotation.
- The Earth is tilted on it's axis at a 23.5 degree angle.
- The Earth's tilt is always in the direction of the North Star.

What is another name for the North Star?

Polaris

- This tilt is what causes our days to get longer in the summer and shorter in the winter.
- Because of the Earth's rotation the sun appears to rise in the east and set in the west.



SEASONS

What two things cause the difference in the seasons?

1. The angle of the sun's rays
2. The length of the days



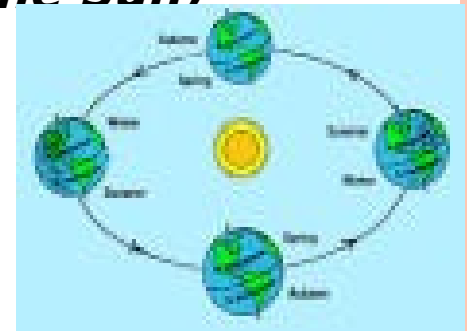
There are two kinds of rays from the Sun:

1. Direct- occurs when Earth is tilted toward the Sun
2. Indirect-occurs when Earth is tilted away from the Sun

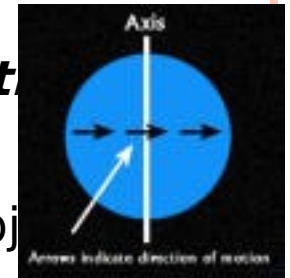
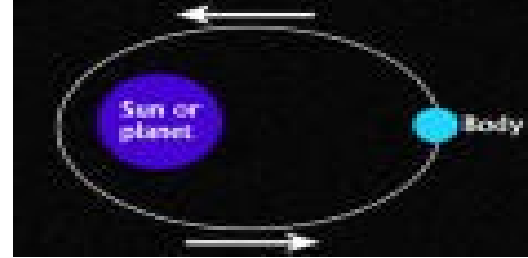
In the Summer, we get the direct rays from the sun and the days are longer. (But we are farther away from the Sun)

In the Winter, we get indirect rays from the Sun and the days are shorter. (But we are closer to the Sun)

Why does this happen?



SUMMARY



What is the difference between rotation and revolution?

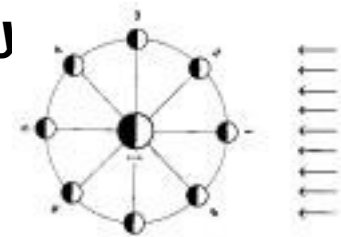
Rotation occurs when an object spins around an axis.

Revolution occurs when an object spins around another object.

Give me an example of something that revolves, and something that rotates.

What type of movement causes night and day?

The Earth's rotation



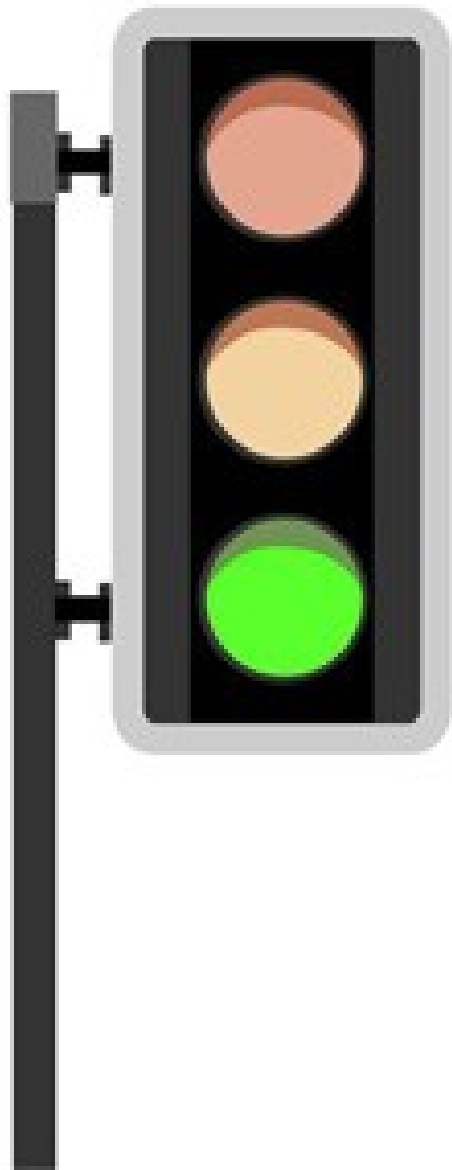
What type of movement causes the change of seasons?

The Earth's revolution- the angle of the sun, and the length of the day.

How do we know that the Earth Rotates?

Star trails, pendulum swings, ocean currents, wind currents





**ON CLICK
ANIMATION**

Thank uuuu!!!